

## CCSU Lesson Plan Template

<b>Student Teacher: Gabrielle Anello</b>	<b>Grade Level: 5</b>
<b>Lesson Date: September 24, 2015</b>	<b>Name of Lesson: The Separation of Solid Mixtures</b>

### Common Core State Standard(s)

**LAFS.5.SL.1.1** : Engage effectively in a variety of collaborative discussions such as one-on-one, in groups, and led by the teacher with diverse partners on topics and texts that apply to 5<sup>th</sup> grade, building on each other's ideas and clearly expressing what their own ideas are.  
**SC.5.P.8.3** : Show and explain that separation of mixtures of solids is based on observable properties of their parts such as shape, color, particle size, and magnetic attraction.

### Student Learning Objective(s)

What is the intended learning outcome of this lesson? Be sure it is observable and includes clear criteria.

Consider if there are students who will require an accommodation or modification to meet this lesson's objective.

- The students will be able to show and explain that solid mixtures can be separated by shape, color, particle size, and magnetic attractions using various tools.
- The students will effectively engage in discussions collaborating about separating mixtures with different partners who will build on each other's ideas and will also express their own clearly.

### Rationale for Objective: How does this lesson support previous and subsequent learning?

- Students will have prior knowledge of the definition of a mixture and would have worked with mixtures before starting the lesson.
- Students should be able to know what a solid is in comparison to the three most common states of matter which are solid, liquid, and gas, and some common properties of these.

### Assessment

State the specific strategy(ies) and tool(s) used to collect the data for each SLO (i.e., essays, projects, quizzes, exit slip, worksheet, etc.). Are there students who will require an accommodation or modification to this lesson's assessment?

1. Students will choose from a collection of 4 mixtures that can be separated by shape, size, magnetic attraction, and/or color using an assessment document given to them.
2. Students should write down the mixture that they will be separating.
3. Students will then discuss and decide which tool can be used to separate the mixture.
4. Students who can successfully decide on a correct tool and explain why it can be used will be able to show mastery of the science standard. Those who cannot complete do this will need additional support in practicing mixture separation in another lesson or small group setting.
5. Students will physically see if their prediction of tool selection is correct.
6. Students should be engaged in collaborative discussion.

### Classroom Learning Environment Focus

(i.e., standards of behavior, routines, procedures, group work, transitions, instructional arrangement, etc.). Explain specific needs.

Students should discuss their thoughts throughout the lesson with their partners (group work), although they will be filling out the sheet individually. Students will work with classmates at table groups. After all students are finished in their groups, all materials will be collected and the students will meet as a whole group to discuss their findings.

### **Instructional Model/Strategy**

(i.e., concept formation, concept development, direct instruction, cooperative learning, inquiry, discussion model). Explain how you will best facilitate student learning through a specific model of instruction. Be sure to include a rationale for the chosen model(s). You may use more than one:

The goal is for the teacher to gauge student understanding in order to guide the instruction late on in the lesson. Students should gain an understanding of mixtures and should understand how to choose tools to effectively separate them. Throughout the lesson, the teacher will circulate the students and listen to their responses on how to separate mixtures. The teacher will offer feedback when it is necessary. The teacher can test understanding that some mixtures have more than one way to be separated by asking the students questions. Ask the students what their first thoughts were about mixtures when they were asked in the beginning of the lesson. The teacher will be listening and observing the participation of the students to make sure they are conversing and discussing collaboratively.

### **Materials/Resources needed for this lesson**

- One index card per student
- One sheet of paper
- 4 paper bowls labeled 1-4
- Bowl #1: colored beads
- Bowl #2: sand and iron filings
- Bowl #3: coins and corks
- Bowl #4: sand and small rocks or pebbles
- 1 "Tool Tub," This should include: a small container of water (preferably with lid so it does not spill), mesh screen, magnets, traced cut-out of a hand (to represent and help remind students that they may use their hand(s) as a tool), 5-6 coffee filters, a funnel, spoons or other small scoopers (like measuring cups) and a pair of tongs or tweezers.
- One Attached Separating Mixture Student Exploration Recording Sheet per student

Extension:

- Water
- Sand
- Hot plate
- Beaker or small pot

### Daily Formative Assessment

How will you check for understanding and student achievement during the lesson?

Walk around and listen to students and their conversations and discussions with their peers. Students understand if they can successfully fill out the assessment document.

### Differentiating Instruction

How will you differentiate to meet the needs of your learners (i.e., what you teach, how you teach, or how you will assess). Explain:

Students with varying ability levels can be paired up to use cooperative learning levels.  
Pictures and words can be used as something for students to respond to if they have various learning abilities and styles.  
A variety of learning disabilities can be accommodated by using hands-on exploration.

### Initiation

Cite how you will engage and motivate learners, activate prior learning and present the lesson's objective.

Explain: A) What they will be doing and learning in the lesson;

B) How they will demonstrate learning;

C) Why it is important to their everyday lives.

A) They will be learning about separating solid mixtures, predicting if and how they will separate, what tool will be used, and discussing what they find with their peers and why they agree or disagree with each other's ideas.

B) They will demonstrate their learning by discussing their understandings and by writing down an explanation on the tools that are chosen to separate the mixture.

C) It is important to their everyday lives because they will need to interact with others in discussions and conversations in everyday life, understand how mixtures are separated and what tools to use, document ideas, and see others' point of view.

### Lesson Development

Cite how you will provide opportunities for the students to construct meaning. List the steps/process you will follow. Be sure to identify how you will check for understanding and collect formative data. Differentiate for students who will require an accommodation or modification in order to be active participants in this lesson and state these strategies in the differentiation section above.

1. Students will discuss their predictions and then their findings while they are investigating.
2. Students will receive feedback as needed while investigating.
3. Students would have understood when they are able to explain the tool that they chose and why it separates the mixture successfully.
4. Students who do not understand completely will work with the same investigation in another lesson or small group.
5. The class will get together as a whole to discuss their findings.

## Closure

How will you question students in order to evaluate if the objective(s) was met? How will you question students to connect this lesson to previous and subsequent lessons as well as connect to their own lives? How will you question students to see the relevancy of the lesson by understanding the purpose/importance of the learning?

As stated before, the objective has been met if the assessment document was filled out correctly. Since it needs to be filled out individually, it can be seen if each student in each group understood the objective. The students will be questioned by being asked what their findings were and how they are similar or different to their peers and how each mixture was able to be or not able to be separated. If the students can repeat the process and explain why everything happened, they understand the objective.

## Reflection on Practice

**Student Achievement** – Evaluate student learning based on collected data for each SLO for each group of learners. Identify how each group met the stated criteria in the SLO, including specific data for each SLO. Based on your analysis what would you continue or change about your teaching for the next lesson?

See how the students' data appears and if each student understood the objective. If there are students who were not able to understand the objective the first time, when they investigate again, have a student who understood the investigation work with them and listen more closely to the students who need to repeat the experiment. Have them do each step carefully and make sure they are understanding why certain mixtures need certain tools or not. Give more feedback when needed.

**Common Core of Teaching Connection** – Choose an attribute from an indicator from Domains 1-4. Choose an attribute that was effective in your lesson. What specific evidence from the lesson supports this?

Choose an attribute that you would like to focus on. What specific evidence from the lesson supports the need to focus on the specific attribute? Suggest a strategy that you will try for the next lesson to address this need.

Domain 1, which is Classroom Environment, Student Engagement, and Commitment to Learning was evident in the lesson.

The students were engaged in conversation and using different tools and sharing ideas.